

R-585-7-6-38 A FIELD TRIP REPORT FOR POTOMAC SUPPLY CORPORATION PREPARED UNDER TDD NO. F3-8512-28 EPA NO. XA-306 CONTRACT NO. FOR THE HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIROUMENTAL PROTECTION AGENCY AUGUST 6, 1986 US-CORPORATION SUPERFUND DIVISION REVIEWED BY APPROVED BY SUBMITTED B MANAGER, FIT III ENVIRON. TECHNICIAN ASSISTANT MANAGER

Disclaimer:

This report has been prepared for the U.S. Environmental Protection Agency (EPA) under Contract No. 68-01-6699. The content does not necessarily reflect the views and policies of EPA nor does the mention of trade names or common products constitute endorsement by EPA.

Site Name: Potomac Supply TDD No.: F3-8512-28



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SECTION 1

Site Name: Potomac Supply TDD No.: F3-8512-28

ORIGINAL (Red)

#### 1.0 INTRODUCTION

#### 1.1 Authorization

NUS Corporation performed this work under Environmental Protection Agency Contract No. 68-01-6699. This specific report was prepared in accordance with Technical Directive Document No. F3-8512-28 for the Potomac Supply Corporation site located in Kinsale, Virginia.

## 1.2 Scope Of Work

NUS FIT III was tasked to complete a site inspection and sampling of the Potomac Supply site.

## 1.3 Summary

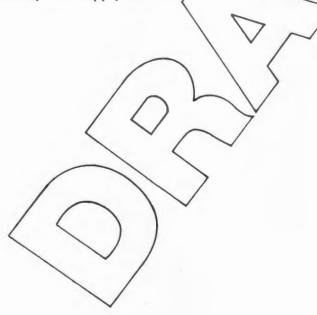
The site is an approximately 20-acre, active sawmid and wood treatment facility. The facility has been active as a sawmill since 1947; wood treatment began in 1975. Potomac Supply Corporation has RCRA Identification Number VAP000000753 as a small quantity generator.

Potomac Supply Corporation uses the osmosis wood treatment process, which employs chromated copper arsenate (CCA) - Type C wood preservative. The CCA-Type C is manufactured from oxide chemicals only, such as copper oxide (CuC), chromium acid (CrO<sub>3</sub>), and arsenic acid (H<sub>3</sub>A<sub>5</sub>O<sub>4</sub>). The osmosis process is the only wood treatment operation ever utilized at the site.

The facility operates its wood treatment process and has its drip pad for freshly treated wood in a fully enclosed and heated building. The treating plant and chemical containment and recovery system are housed on the southwestern end of the plant property in a 270- by 775-foot metal building. The treatment plant operates as a closed system in order to ensure no discharge of process wastewater pollutants into navigable and state waters.

Prior to the construction of the storage building, the treated wood regied in the open. Two unlined lagoons were used to collect any wastewater generated during rainstorms. The CCA oxide formula used in the process is a water-borne preservative that makes these chemicals available for leaching into the ground and mobile in surface waters. Wastewater from these lagoons is currently being pumped out, remixed, and reused. A diversion system has been constructed to prevent runoff from entering the two lagoons.

The concern at this site is suspected contamination of groundwater and surface waters. Stream samples were taken in the unnamed tributary to Kinsale Branch located adjacent to the site. There were no downgradient home wells located during the field investigation. The surrounding residents are serviced by a public water supply system, which obtains its water from a well located approximately 3/4 mile northeast of the site. This well is reportedly 280 feet deep with a steel casing, no screened interval, and a yield of 45 gallons per minute (gpm). Since the public supply well is located downgradient of the site, a sample from a home well serviced by this supply was collected in order to determine possible contamination.





SECTION 2

TDD No.: F3-8512-28



#### 2.0 FIELD TRIP REPORT

#### 2.1 Summary

On April 24, 1986, FIT III members Monica Connolly, Brian FitzPatrick, Michael Snyder, and William Hose conducted a site inspection of the Potomac Supply Corporation. Site access was granted by Mr. Richard Gouldin, company vice president, via a telephone conversation on April 8, 1986. The FIT was accompanied by Herbert Carden and Richard Gouldin, representing Potomac Supply Corporation, and Bruce Gerber, representing Commonwealth Laboratories Potomac Supply Corporation obtained a split sample for the on-size sample collected. Weather conditions at the time of the site visit were clear and sunny, with temperatures in the mid-60s.

The number of samples obtained was eight aqueous and five sediment, including blanks and duplicates.

## 2.2 Persons Contacted

#### 2.2.1 Prior to Field Trip

Darius Ostrauskas U.S. EPA 841 Chestnut Building Ninth and Chestnut Streets Philadelphia PA 19107

Keith Powler Virginia State Water Control Board P.O. Box 669

Kilmarnoch, VA 22482 (804) 435-3181

(215) 597-8488

Richard Gouldin Potomac Supply Corporation Route 203 North Kinsale, VA 22488 (804) 472-2527

Jesse L. Royall, Jr., P.E. Staff Engineer Snyder Hydrodynamics, Incorporated Box 27186 Richmond, VA 23261 (804) 643-2725

Site Name: Potomac Supply TDD No.: F 3-8512-28

#### 2.2.2 At the Site

William and Herbert Carden Potomac Supply Corporation Route 203 North Kinsale, VA 22488 (804) 472-2527 Richard Gouldin
Potomac Supply Corporation
Route 203 North
Kinsale, VA 22488
(804) 472-2527



TDD Number <u>F3 4513 - 24</u>
EPA Number <u>V.2 - 361</u>

2.3 SAMPLE LOG

Site Name Potomor Supply

anic	TRAFFIC REPORTS  Inorganic Hig	h Hazard	SAMPLING LOCATION	PHASE	SAMPLE DESCRIPTION	DATE	TIME	ρН	COMMENTS/OBSERVATIONS	LABORATORY
	MCD-15		Home well 1	Aij	Downgradient Municipal wall	4/24/86	1137		Thorganie"	RMAL
-	MC0637		Hame Wells	Ay	elfquelicent		1200		Total Me	tals unly
	MED624		in Site well	149	low Con Aquerus		1.445		`	O
	MEDIA		De Steere 1	Ag			1105			
	MCD637		De instrum 3	Ag			LIFE			
	MUSLOS		dpstrace.	19			1610			
	MUNDY		CIENC	Ax						
	Mec 936		Dep Servicion	Ai	V		1165			
	MCDL3C		Drindram	501	Lea Cone Solid		1105			
	MC13651		Dimber 2	201			1160			
	MCDES	,	ipstream	Sist			1610			
	MCD634		Dup- Dowstiand	Sel			1105			
	ricuse's5		Blenk	Sel	<b>Y</b>		n SC			
	<b>S</b>		·						100	2
·			•						Red) AL	M

#### 2.4 Site Observations

- The HNU background reading was .8 ppm; no readings above background were recorded.
- o The mini-alert was set at 1 X; no readings above background were recorded.
- o There are two unlined lagoons on site, .17 and 1.25 acres in size.
- o One lagoon has been pumped dry. The socond lagoon is in the process of being remediated.
- o There were no observed releases from the lagoons.
- o There is only one on-site well in operation that is being used for both drinking and production. This well is 360 feet deep, screened from 345 to 360 feet, and has a yield of 30 gpm.
- o Downgradient home wells are serviced by a public supply system. This system receives its water supply from a well located approximately of the site.
- o There were no stained soils areas or sheens observed along the tributary.







- Photo 1 On-site drinking/production well pump located in front of Stoker Steel—



505. Sample taken 100 ft. ..11.



Photo 3 - Downstream 1



Photo 4 - Downstream 2 sample taken 50 ft. downstream of #1.



SECTION 3



## 3.0 LABORATORY DATA

## 3.1 Sample Data Summary

## GLOSSARY

	Data Summary Footnotes
	data summary which follows, data qualified code letters are associated with definitions:
$\Diamond$	This concentration reported by laboratory, but evidence to doubt presence of compound/element (may or may not be present).
J	Approximate value; detected below limit of accurate quantitation.
[]	Value is greater than or equal to the instrument detection limit, but less than the contract required reporting limit.
UF	The material was analyzed for, but was not detected. The associated numerical value is the estimated sample quantitation limit.
F	The associated numerical value is an estimated quantity because quality control criteria were not met. (See Quality Assurance Review for specifics as to magnitude or direction of variability or bias.)
R	Quality Control indicates that data are unusable (compounds may or may not be present). Resampling and/or reanalysis is necessary for verification.
N	Evidence for presence of material is presumptive (tentative identification).
Н	Suspected Unreliable Result: Even though data validation criteria have been met, this result may still be suspect because false positives are a frequent problem with this particular compound or method of analysis. To prove validity, corroboration with additional analytical results or supporting information would be recommended.

TDD Number 13-8311- 28	TARGET COMPOUNDS	Site Name 10 10 mac supply
EPA Number 119-3/15	Organic Minorganic	Date of Sample
alio samples were	Compounds Det	ested
Sample Sample Description	The last of the la	
Sample Sample Description Number and Location Phase Units	The state of the s	Remarks
MOSTIS Home Well 1 AQ ug/L	13600 ESJ	[22] [36] [4790]
MCD622 Home Well 8 Ap ug/L [36]	[162] 27000	[5:1] 180 11300 ·
MCD624 Qn Site Hell Ag ug/L	13900	[36] 5370
MCN626 Downsheam 1 Ag wg/L [130)	[34] [46/6]	1990 [209i] Dup *
MODE 27 Lownstream 2 to wyl (133)	[35] [490c]	[4.5] 2010 [2010]
MCD628 Upstreem AQ ug/ [168]	[52] [1.2] [3500]	1270 36407
MUDER Blank Ag ugl [60]		[17] [18]
MCC936 Downsham 1 AQ ugl [150]	[34] [460]	(12) 2060 (20%) Dup *
MCD630 Downstream / Sol my key 7500	71 [7] (1570) 51	[395] 45100 11 (1420]
Mcs631 Sounstream 2 Sel my kg 4610	17 [4] [895] 23	[21] 14600 7.4 [424]
100632 Upstream SEL my kg 1040	- L147] [1420] [18] [17]	[27] 52500 15 [1010]
MCD/34 Arunstream 1 Sch my Key 11/00	95 [1940] 78	(52 J 75400 14 [2260]

[13]

NOTE: For a review of this data and non-target, tentatively identified compounds, please see the Analytical Quality Assurance section of this report.

Sol maky

MUDES Blank

<sup>♦</sup> Denotes results of questionable qualitative significance based upon quality assurance review of data.

JPA Nun	ber 6% -32	<u> </u>					erganic X tr	or ganic		D:	ite of Sai	mple			<b>E</b> /	
	samples w								Compounds Det v	cted						
ec por	TED IN DAY	were	AHT.	/	\$	//	[ ]	//		//	<u> </u>	//	/	Julie Co.		
Sample Number	Sample Description and Legation	Phase	Units	145	Solution A Solution	e de	rining winds	set sali	The state of the s	n in	View /	Carlino Carlos	/ ceren	Re	e:narks	
mab615	Home Well 1	AQ	luge		845	11000		47500			350	^	1/A			
mc0622	Home well 8	AG	leg/L	19		[4420]		71700		a minus a minus and	778		/1			
MCD624	On sate well	Aq	will	5370		11600		42500			Cir		13			
MCDE26	Downstream 1	Aq	igle	116	.	[2000]		4752			[16]		1/			
MCB627	Downsheim 2	Aq	wil	119		[2000]		5280	administration was also described as a supply later out of a		[12]		,1			
MC0628	Upstream	AQ	light	50		[1680]	13.15	5260			[4.6]		"	- dually dis naturally as recognitive for	-	
		Ap	ugl		[15]						[2]		7)			
MCC 936	Dup bownstream 1	AP	light	114		[1950]	10	[486]			67	The second second second second	//	santotrovalskinga en envisoritatio		
MCD630	Sounsham 1	StL	mylkg	399				[1770]		[3c]	930	,	28%			
MOBI	dunstian 2	StL	mylkg	136	(0.86)	[612]		[964]		[ii]	43		54%			
	Upstream	Sel	mglke	318	[18]	[1440]		[620]		[34]	68		24%			
ML1634	Sownskam 1		myKa					[1710]		(39]		1	4%		98	
MC0635	Blank	SOL	my kej					[432]			[19]		100%	eg	GINAL	
										1	1	1			-	- 5

Site Na 10 10 lomac Jupph

NOTE: For a review of this data and non-target, tentatively identified compounds, please see the Analytical Quality Assurance section of this report.

Q Denotes results of questionable qualitative significance based upon quality assurance review of data.

Site Name: Potomac Supply TDD No.: F3-8512-28

TDD No.: F3-8512-28

RIGINAL (Red)

## 3.2 Quality Assurance Review

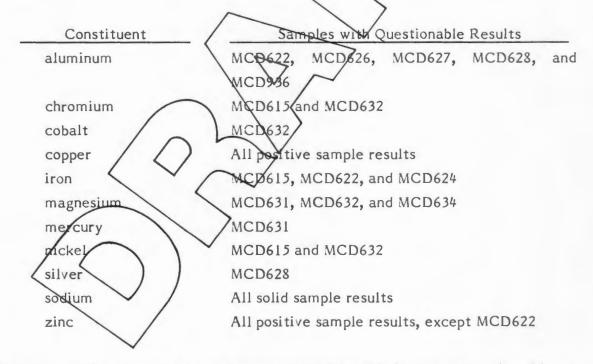
3.2.1 Inorganic Data: Lab Case 5880

#### 3.2.1.1 Introduction

The findings offered in this report are based on a general review of all available inorganic laboratory data, blank analysis results, matrix spike and duplicate results, calibration data, and ICP interference data.

## 3.2.1.2 Qualifiers

It is recommended that this data package be utilized only with the following qualifier statements:



The aforementioned results were designated questionable because there is evidence to doubt the presence of these compounds (they may or may not be present). Generally, these data are best used to demonstrate that substantially greater levels of environmental contamination do not exist in the above sample results.

- o Due to transcription error, the laboratory incorrectly reported the result for mercury in sample MCD631. The data summary has been corrected for this error.

  (Red)
- o The actual detection limit for selenium may be substantially higher than reported in sample MCD630.
- o The reported result for zinc in sample MCD615 may not reflect the average concentration present.
- o The reported result for chromium and iron may not reflect the average concentration present in samples MCD630 and MCD634 (solid field duplicates). Similarly, the reported result for silver in sample MCD626 and MCC936 (aqueous field duplicates) may not reflect the average concentration present.
- o Although zinc and magnesium are questionable in samples MCD630 and MCD634 (solid field duplicates), if they are actually present, the reported results may not reflect the average concentration present. This also true for aluminum and copper in the aqueous field duplicates (samples MCD626 and MCC936).
- o Although there is no reason to suggest that any additional sample results are questionable, it was not possible to verify the results for arsenic, selenium, thallium, and lead due to insufficient documentation. Similarly, it was not possible to verify that results within five times of the instrument detection limit are not artifactual.

### 3.2.1.3 Findings

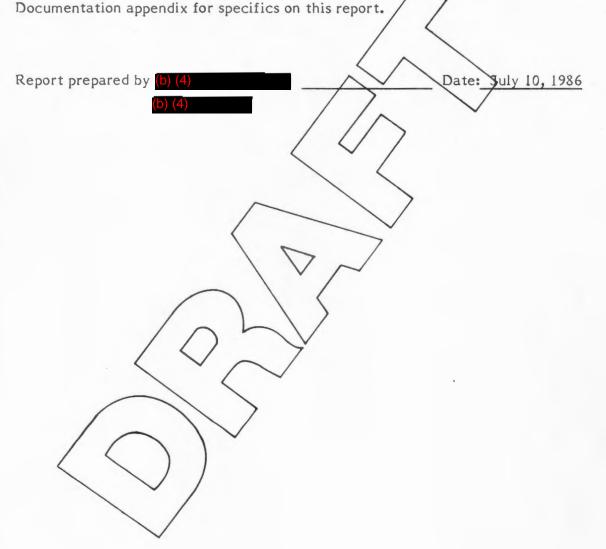


- o Field and/or laboratory blank analysis revealed the presence of aluminum, chromium, cobalt, copper, iron, magnesium, mercury, nickel, silver, sodium, and zinc at sufficient levels to question the aforementioned sample results.
- Examination of raw data revealed that the reported result for mercury in sample MCD631 was in the ug/l unit instead of the required mg/kg unit. Both results, however, were provided in the raw data but were incorrectly transcribed into the reported form 1.
- o The matrix spike result for selenium in sample MCD630 exhibited zero recovery.
- o The laboratory duplicate analysis result exhibited some variability for zinc in sample MCD615.
- o The field duplicate analysis results for sample MCD630 and MCD634 (aqueous field duplicate) exhibited some variability for chromium and iron. This is also true for silver in samples MCD626 and MCC936 (solid field duplicates).
- o The field duplicate analysis result for the solid samples MCD630 and MCD634 exhibited some variability for zinc and magnesium. This is also true for aluminum and copper in the aqueous field duplicate samples MCD636 and MCC936.
- The laboratory did not include absorbance in the raw data for arsenic, selenium, thallium, and lead, only final concentration. Therefore, errors resulting from conversion to final concentration could not be ascertained. Additionally, low level results could not be verified since field and laboratory blanks were reported in the same manner and results which are just below instrument detection limits were not provided in the raw data.

Site Name: Potomac Supply TDD No.: F3-8512-28

#### 3.2.2.4 Summary

The text of this report has been formulated to address only those problem areas which affect the application of the data to the subject investigation. The attached Quality Assurance Review has identified contamination, field and laboratory duplicate analysis results, transcription error, detection limit, and insufficient documentation as the primary areas of concern. Please see the attached Support





APPENDIX A

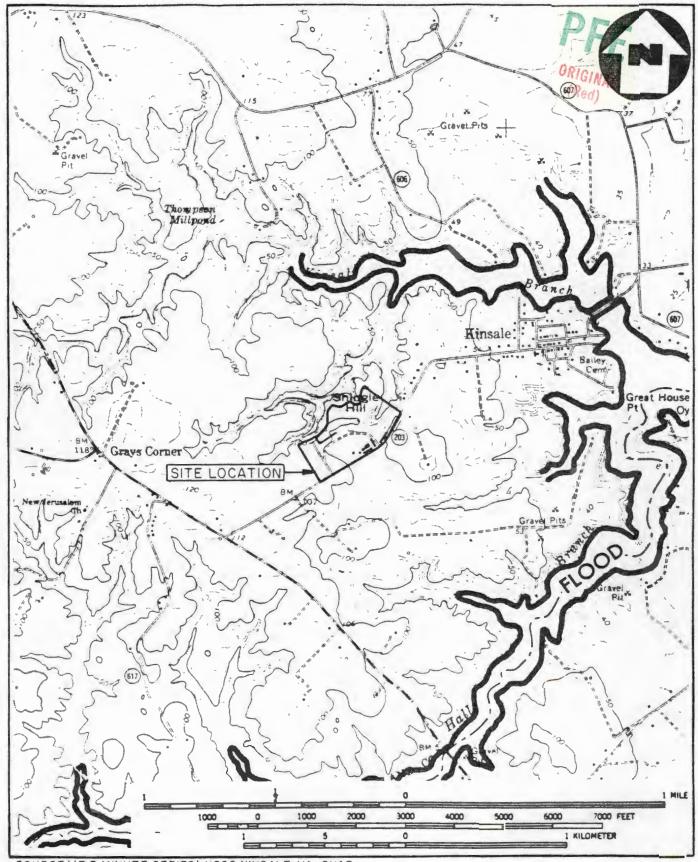
PFF	
ORIGINAL	

1. COST CENTER:				2. NO.: (Red)		
		A/FIT ZONE CONTRACT DIRECTIVE DOCUMENT (TD:		F3-8512-	28	
ACCOUNT NO.:	TECHNICAL	DIRECTIVE DUCUMENT (TD	0)	1 3-6312-26		
3. PRIORITY:	4. ESTIMATE OF TECHNICAL HOURS:	5. EPA SITE ID:	6. COMPLETION D	ATE: 7. REFERENCE II	NFO.:	
П HIGH	200	VA-306	1 -11	OA XYES	NO	
MEDIUM	4A. ESTIMATE OF	SA. EPA SITE NAME:	3 wks. after	□ ATTACHE		
Low	SUBCONTRACT COST:	Potomac Supply		X PICK UP		
	,	Kinsale, VA				
8. GENERAL TASK DESC	RIPTION: Perform a sign	te inspection of the su	biect site.			
		·,				
9. SPECIFIC ELEMENTS:	1. Review background i	nformation		10. INTERIM DEADLINES:		
2.) Contact	state and local agencies	for relevant informat	ion	— DEADLINES.		
3.) Prepare	and submit sampling pla	n to EPA for approval.				
4.) Coordin	ate lab analysis. Arrange	e for site access.				
5.) Conduc	t on and off site inspection	on and sampling.				
6.) Take an	d ship samples according	to standard protocol.			_	
7.) Prepare	and submit field trip rep	ort due 2 wks. after s	ite inspection.		_	
8.) Perform	Quality Assurance Revi	ew of lab data.				
9.) Prepare	and submit report, inclu-	de in cover letter reco	mmendations for	or need of HRS.		
	k on this project to be pe		WP-SI-1, Rev.	1.		
11. DESIRED REPORT FO	ORM: FORMAL REPOR	IT X LETTER REPO	RT FO	IRMAL BRIEFING		
	١	(6) (4)				
OTHER (SPECIFY):					-	
	prepared under TDD F3-8	410-05 for additional	information			
12. COMMENTS:						
	State Code 0	51 County Cod	ie 193			
13. AUTHORIZING RPO:				14. DATE:		
	(SIGNATUE	RE)				
15. RECEIVED BY:	ACCEPTED AC	CEPTED WITH EXCEPTIONS	REJECTED	16. DATE.		
	(CONTRACTOR RPM	SIGNATURE)				
					-	

Sheet 1 White - FITL Copy Sheet 2 Canary - DPO Copy Sheet 3 Sheet 4 Pink - Contracting Officer's Copy (Washington, D. C. ) Goldenrod - Project Officer's Copy (Washington, D. C. )



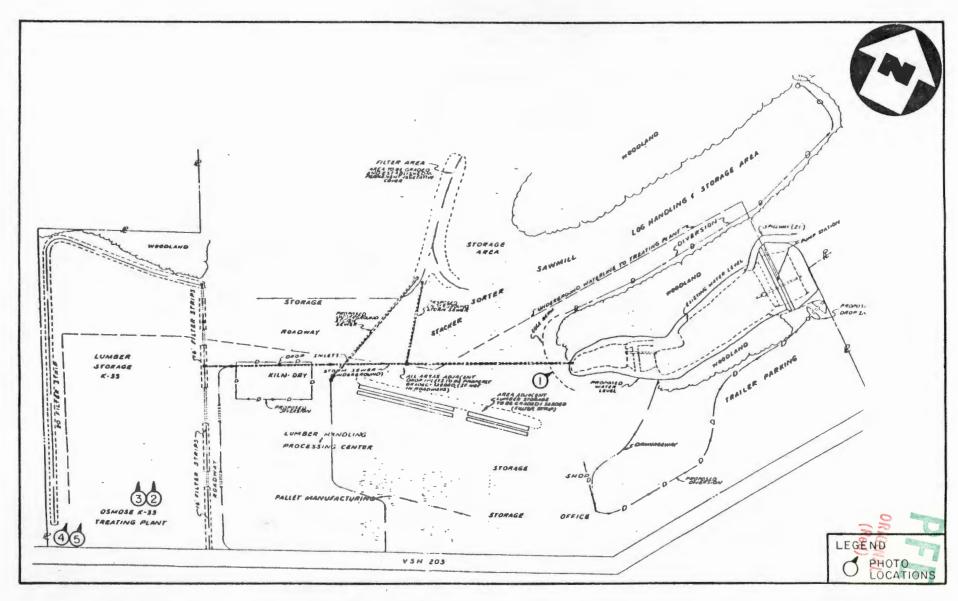
APPENDIX B



SOURCE: (7.5 MINUTE SERIES) USGS KINSALE, VA. QUAD.

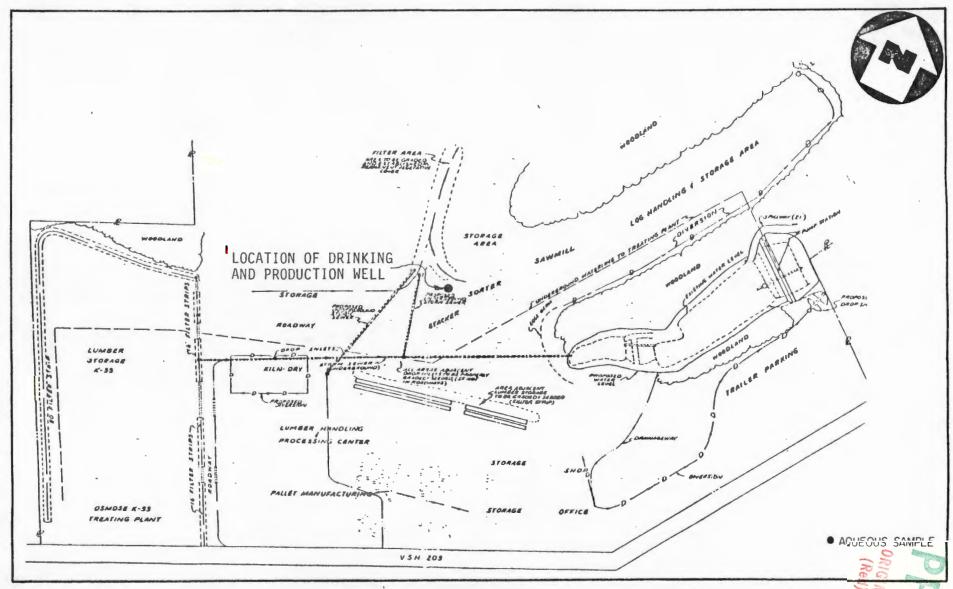
POTOMAC SUPPLY, KINSALE, VA.
SCALE 1:24000





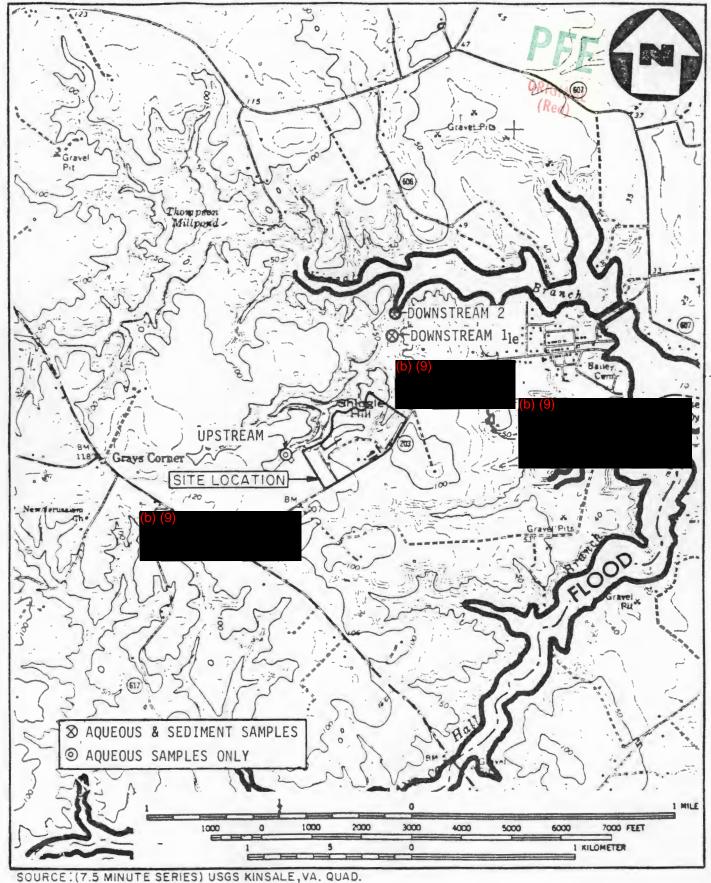
POTOMAC SUPPLY, KINSALE, VA.
(NO SCALE)





SAMPLE LOCATION MAP
POTOMAC SUPPLY, KINSALE, VA.
(NO SCALE)





OFF-SITE SAMPLE LOCATION MAP POTOMAC SUPPLY, KINSALE, VA.

SCALE 1:24000





APPENDIX C

PROJECT NAME: Tofomac Supply
TDD NO:  $\frac{1}{13} - 8512 - 28$ 

EPA SITE NO.	
REGION:	

# QUALITY ASSURANCE REVIEW OF INORGANIC ANALYTICAL DATA PACKAGE

ORIGINAL (Red)

Case No.: 5880	)		Applicable Sample Nots	i.:			
Contract No.: 68 - 01-	7068		MCD629, MCD622, MCD624, MCD629,				
Contract Laboratory:	MAL.						
Applicable IFB No.: WA	34-5098	2	MCC936, MCD 63				
Reviewer: (b) (4)			mes 632 1	/			
Review Date:			and mes				
The inorganic analytical dat	a for this cas	se has been reviewed.	The quality assurance of	evaluation is			
summarized in the following	tables						
Reviewer's Evaluation*		Fraction					
	TASK I	TASK II	TASK II	TASK III			
	ICP or AA METALS	FURNACE AA METALS	COLD VAPOR AA MERCURY	CYANIDE			
Acceptable							
Acceptable with exception(s	VIVY	1/2. (.	Val				
Questi ona ble		3) 3)					
Unacceptable							
DATA COMPLETENES  DATA COMPLETENES  BLANK ANALYSIS RE  MATRIX SPIKE RESULT  DUPLICATE ANALYS  STANDARD ADDITION  QUANTITATIVE CALC	SULTS LTS IS RESULTS NS RESULTS		ALIBRATION VERIFICATION VERIFICATION VERTHER CALIBRATION VERTHER CALIBRATION VERTHER CALIBRATION VERTHER CALIBRATION LIMITS RESULTS ENT SENSITIVITY REPO	IFICATION			
Data review forms are a **No errors noted, no form **Spot Check performed.		each of the review it	ems indicated above.				
Comments:							
. 01	elenk an	nalusa results	Contaminal	(m)			
(2) Place See for	t de	maria otion	enras).	3,77			
and the same of th	me fore	in all sulta	201741				
(4) Please see boxt	( Cold	du plicate dem	nh evaluation?	prichlete)			
(5) Near lu lant	mon	Alexant dans	mentation.				
( ) muse me topol	( mon	meeting work	The work				

#### DATA EVALUATION SCORE CATEGORIES

ACCEPTABLE: Data is within established control limits or the data which is outside established control limits does not affect the validity of the analytical results.

ACCEPTABLE WITH EXCEPTION(S): Data is not completely within established control limits. The deficiences are identified and specific data is still valid, given certain qualifications which are listed below.

The deficiences bring the validity of the entire data set into question. However, the data validity is neither proved nor disproved by the available information.

UNACCEPTABLE: Data is not within established control limits.

The deficiences imply the results are not meaningful.

		1,114							1	6/sol	Bar S	R A	200	$\rightarrow$
	TRAFFIC MC	6/AQ		1/2/1	N/26	1/22	A128	0629	102/	-	2121		1101	No
	LAS 1.0. #	1000	1022	2024	2020	DEFT	UDAO	4627	CDB	06,00	DEST	INAL	06.54	0835
FIELD QC	St. ANIM	-	-					/			(Re	4)		
1220 44	BLANK	-						V		,				V
	DUPLICATE	IV								V				
TASK I:	SPIKE	-	V							V				
ICAP OR AA	RAW DATA	V												$\rightarrow$
METALS	TAB. RESULTS	1												$\rightarrow$
	TAB. D.L.'s	V												$\rightarrow$
	QA FORM	V												$\rightarrow$
	ICAR INTER. QC	V	4											$\rightarrow$
	INSTR. SENS.	V												$\rightarrow$
TASK II: FURNACE	RAW DATA	V												$\rightarrow$
AA:	TAB. RESULTS	V												$\rightarrow$
METALS	TAB. D.L.'s	V												->
	QA FORM	V										- /		$\rightarrow$
	INSTR. SENS.	/												->
TASK II:	RAW DATA	V												->
COLD VAPOR	TAB. RESULTS	V						-						->
MERCURY	TAB. D.L.'s	V												
	QA FORM	V												
	INSTR. SENS.	V												
TASK III:	RAW DATA	V												
CYANIDE	TAB. RESULTS	V												
	TA8. D. L.'s	V												->
	QA FORM.	V												
	INSTR. SENS.	V												
OTHER	RAW DATA	1	-											-
(SPECIFY):	TAB. RESULTS	-	1											
	TAB. D.L.'s			1										
	QA FORM				-					/				
	INSTR. SENS.						-							
OTHER	RAW DATA	-												
(SPECIFY);	TAB. RUSULTS								-					
	TAB. D.L.'s	-									-			
												1	-	
	OA FORM		/										1	_

).

	INSTA. SENS.			
COMMENTS:				

TASK	TYPE CONC MATRIX	SAMPLE #	SOURCE OF H20	YSIS RESULTS PETECT
AIL	hepara him Blank low / Aqueons	BUL	RMA	Aluminum (9.5 mg/L/200) 2 Celcum (68.8 mg/L/100) 2 Chromium (2.8 mg/L/10) 2 Celpatt (3.6 mg/L/50) 2 Copper (6.5 mg/L/20) 1 From (249 mg/L/20) 1 Wignessum (6.2 mg/L/20) 2 Vickel (1.7 mg/L/40) 2 Jodium (55.5 mg/L/20) 1 Leber (1.2 mg/L/20) 1
YLL	field Blank Low/Aqueon	Mas629		Alumnum (60.5 ug/l/) 1 Colemn (46.6 ug/l/son) 2 Chamium (4.4 ug/l/100) 2 Cohalt (2.3 ag/l/50) 2 Compar (17.0 ug/l/10) 1 Loon (18.2 ug/l/500) 1 Magnesium (246. ug/l/5000) 2 Nakel (15.5 ug/l/5000) 2 Volassium (8/ ug/l/5000) 2 Sodium (443.7 ug/l/5000) 2 June (19.7 ug/l/5000) 1
ML	Preparation Blank Low 884 d	BUK	RMA Leboratory	Aluminum (1.6 m) (1) 2 Calcium (111 m) (1000) 2 Calcium (7.5 m) (125) 1 Fron (36.4 m) (100) 1 Pota Sium (218 m) (15000) 2 Sodium (5116 4 m) (15000) 2 Zine (7.6 m) (1700) 1
OMMEN (1) R (2) R	NALYTICAL DATA SUM	MARY.	AND CONFIRMED B	reviewer.  Cross-applied for lasth samples

BLANK ANALYSIS RESULTS TYPE CONC MATRIX SAMPLE # SOURCE OF H20 CONTAMINANTS (CONCENTRATION / DETECTION TASK Alyminum AU Blank mes 635 Corporation LABORATURY REPORTED FIELD BLANK DATA IS COMPARED WITH THE SAMPLE DATA IN A TABULATION FORM V SAMPLE ANALYTICAL DATA SUMMARY. COMMENTS: (1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER. (2) RESULT INFERRED FROM RAW DATA

#### Form V

Q.C. Report No. <u>55910</u>



#### SPIKE SAMPLE RECOVERY

LAB	NAME	ROCKY	MOUNTAIN	ANALYTICAL
DATI	E	5-12	-86	

CASE NO. 5880

EPA Sample No. MCD622

Lab Sample ID No. 
Units UG/L

MATRIX WATER

		Control Limit!	Spiked :	Sample :	Sample	6 6	Spike	ŧ		1
Com	ound	%R :	Result	(SSR) :	Result (SR)	1	Added (SA)	1	%R1	1
Meta	als:	1 1		1		1 4		1		1
1.	ALUMINUM	75-125	1660	1	[36]	1	2000	1	81	9
2.	ANTIMONY	75-125 :	481	1	26U	;	500	1	96	4
3.	ARSENIC	75-125 :	19	1	10U	1	20	1	95	ŧ
4.	BARIUM	75-125	1910	1	[162]	1	2000	1	87	1 1
5.	BERYLLIUM	75-125	48	1	1U	1	50	ı	96	1
6.	CADMIUM	75-125	47	;	5U		50	1	94	1
7.	CALCIUM	75-125	12400	0 :	27000	1	100000	1	97	
8.	CHROMIUM	1 75-125 :	175	1	5U	;	200	1	88	1
9.	COBALT	75-125	493	1	7 U	;	500	8	99	1
10.	COPPER	75-125	264	1	[5.1]	1	250	1	104	1
11.	IRON	75-125	1140	1	180	1	1000	1	96	!
12.	LEAD	75-125	20		5 <b>U</b>	1	20	1	100	8
13.	MAGNESIUM	1 75-125 1	58900		11300	1	50000	!	95	1
14.	MANGANESE	75-125	209	1	19	;	200	ŧ	95	# F
15.	MERCURY	75-125	1.0	i	0.2U	1	1.0	1	100	1
16.	NICKEL	75-125	380	1	6U	1	400	.!	95	;
17.	POTASSIUM	75-125	50600	1	[4420]	1	50000	1	92	1
18.	SELENIUM	75-125	7.2	5 !	5U	1	10	-	(72)	13
19.	SILVER	75-125	48	1	30	1 0	50	- 1	96	1
20.	SODIUM	75-125	16600	0 :	71700	-	100000		94	1
21.	THALLIUM	75-125	39		10U	1	50	1	78	1
22.	TIN	75-125	341	1	16U	1	400	1	85	-
23.	VANADIUM	75-125	469	1	5 <b>U</b>	0	500	1	94	1
24.	ZINC	75-125	936	;	778	1	200	. ;	79	8
Othe	er:	1 t		:		1		1		1
		1 1		1		ę į		;		8
Cyar	nide	75-125		P		1 1		*		1

 $<sup>^{1}</sup>$  %R = [(SSR - SR)/SA] x 100

Comments: Spiked Sample Report for Salerium determined by
Method of Standard addition

1) But well sunfaces the paitsule Ge range

<sup>&</sup>quot;R"- out of control

#### Form V

Q.C. Report No. <u>55911</u>

# PFE 00012 ORIGINAL

## (Red)

## SPIKE SAMPLE RECOVERY

LAB	NAME	ROCKY	MOUNTAIN	ANALYTICAL
DATI	-	5-13-	-86	

CASE NO. 5880 EPA Sample No. MCD630 Lab Sample ID No. Units mg/kg

MATRIX SOIL

	(Control	Limit:	Spiked	Sample		Sample	1	Spike	1		1
Compound	1 %	R :	Result	(SSR)	t t	Result (SR)	1	Added (SA)		%R1	1
Metals:	1	:			8		1		1		1
1. ALUMINUM	1 75-	125 :	1990		į,	2100	†	NR	đ 1		1
2. ANTIMONY	: 75-	125 ;	205			130 •	é è	250	1	82	1
3. ARSENIC	1 75-	125 :	36		ŧ	20	ŧ	20	1	80	1
4. EARIUM	1 75-	125 :	816		ŧ	[22]	1	1000	1	79	1
5. BERYLLIUM	11 75-	125 :	24		8	Ø.5U	ŧ	25	1	96	í
6. CADMIUM	1 75-	125 :	25		1	2.50	1	25	1	100	*
7. CALCIUM	: 75-	125	[480	]	1	[439]	1	NR	1 6		
3. CHRONIUM	: 75-	125	104		1	14	4	100	4	90	1
9. COBALT	: 75-	125	237		t 0	3.5U	1	250	1	95	1
10. COPPER	; 75-	125	131		1	[11]	1	125	1	96	1
11. IRON	: 75-	125	1240	0	1	12600	f t	NR	1		1
12. LEAD	: 75-	125	13		1	3.1	1	10	1	99	1
13. MAGNESIUM	11 75-	125	[397	]	t t	[397]	4	NR	1		1
14. MANGANESE	75-	125	355		1	112	8	250	1	97	1
15. MERCURY	1 75-	125	0.6			0.1U	1	0.5		120	1 1
16. NICKEL	: 75-	125	233			SU		250		93	*
17. POTASSIUM	11 75-	125	[331	]	8	271U	1	NR	1		1
18. SELENIUM	: 75-	125	25U		1	2.50	1 1	5		(9)	:]
19. SILVER	1 75-	125	21		1	1.5U	ŧ	25	1	84	1
20. SODIUM	: 75-	125	[535	1	1	[495]	1	NR	1		1
21. THALLIUM	: 75-	125	24		:	50	!	25	1	96	8
22. TIN	1 75-	125	211		į į	ខប	-	250	1 1	84	
23. VANADIUM	1 75-	125	254		1	[8.3]	7 4	250	1	98	-
24. ZINC	: 75-	125	274		;	26	1	250	1	99	8
Other:	1				1		ė ž		1		8
	:				1		4 8		t r		1
Cvanide	1 75-	125			2 8		1		1		1

 $<sup>^{1}</sup>$  %R = [(SSR - SR)/SA] x 100

Comments: 11 the actual detection limit for Likenmen die sample

<sup>&</sup>quot;R"- out of control

### Form VI

ORIGINAL (Red)

00315

Q.C. Report No. <u>55910</u>

#### DUPLICATES

LAB NAME	ROCKY MOUNTAI	N ANALYTICAL		CASE NO. <u>5880</u>	
				EPA Sample No. MCD615	
DATE	5-12-86			Lab Sample ID No	
				UnitsUG/L	
		Water	MATED		

Matrix WATER

Compound : Control L	mit : Sample(S)	: Duplicate(D)	: RFD <sup>2</sup>
Metals:	1	1	1
1. ALUMINUM :	190	190	: NC
2. ANTIMONY :	: 26U	: .26U	; NC
3. ARSENIC :	100	100	: NC
4. BARIUM :	: 11U	: 11U	: NC
5. BERYLLIUM:	; 1U	1 U	: NC
6. CADMIUM :	; 5U	: 5V	: NC
7. CALCIUM :	13600	: 13900	2.2
8. CHROMIUM :	: [5]	; 5U	: NC
9. COBALT :	; 7U	: 7U	: NC
10. COPPER :	: [20]	[5.9]	: NC
11. IRON :	: [36]	: [41]	: NC
12. LEAD ;	; 5U	; 5U	: NC
13. MAGNESIUM:	[4790]	: [4980]	: NC
14. MANGANESE:	; 4U	; 4U	: NC
15. MERCURY :	: 0.2U	: 0.2U	: NC
16. NICKEL ;	: [14]	1 6U	: NC
17. POTASSIUM:	11000	11300	1 2.7
18. SELENIUM :	; 5U	: 5U	: NC
19. SILVER :	; 3U	: 3U	: NC
20. SODIUM :	47500	49300	3.7
21. THALLIUM :	10U	1 100	i NC
22. TIN :	1 160	160	: NC
23. VANADIUM :	; 5U	t 50	: NC
24. ZINC :	; 35	[13] -	: NC
Other:	1	ł	1
	-	1	1
Cyanide :	:	1	* 1

X Out of Control

(v) The reported request for zone is to ple moder in y not he higher the average concertanties priment

¹ To be added at a later date.  $^2$  RPD = [:S-D:/((S+D)/2)] x 100 NC - Non calculable RPD due to value(s) less than CRDL



Q.C. Report No. 55911

#### DUPLICATES

LAB	NAME	ROCKY	MOUNTAIN	ANALYTICAL
0 4 77		E 10	0.6	

CASE NO. 5880
EPA Sample No. MCD630D
Lab Sample ID No. Units mg/kg

Matrix SOIL

Compound :	Control Limit!	2 8	Sample(S)	<b>'</b>	Duplicate(D)	1	RFD <sup>2</sup>	
Metals:				:		i		
1. ALUMINUM :		ł.	2100	*	1830	8 6	14	
2. ANTIMONY :		ē Ē	13U		130	8 4	NC	
3. ARSENIC :		f f	20	;	20	ř t	Ø	
4. BARIUM		*	[22].		[21]	4 t	NC	
5. BERYLLIUM:		ŧ	0.5U	1	0.5U	1	NC	
6. CADMIUM :		8 9	2.50	t t	2.5U	;	NO	
7. CALCIUM :		1	[439]	!	[405]	1	NC	
8. CHROMIUM :		1	14		13	2 1	7.4	
9. COBALT :		t t	3.50	1	3.50	*	NC	
10. COPPER :		4 #	[11]		[11]	1	NC	
11. IRON :		ž ž	12600	1 1	12000	1	4.9.	
12. LEAD :		E e	3.1	:	5.5	:	56	
13. MAGNESIUM:		I t	[397]	8	[202]	1 F	NC	
14. MANGANESE:		i E	112	t r	106	1 8	5.5	
15. MERCURY :		8	0.1U	1 1	Ø.1U	- 1	NC	
16. NICKEL :		*	3U		3U	1	NC	
17. POTASSIUM:		į į	271U	1	2710	4	NC	
18. SELENIUM :		8 8	2.50	:	2.5U	ę į	NC	
19. SILVER !		t t	1.50	ŧ	1.50	1 1	NC	
20. SODIUM :		1	[495]	*	327U	4	NC	
21. THALLIUM :		t	50	4	5 <b>U</b>	1	NC	
22. TIN :	,		80	:	8U	1	NC	
23. VANADIUM !		- 1	[8.3]	1	[7.6]	8	NC	
24. ZINC :		1	26	1	25	1	3.9	
Other: :		1		1		ě		
		1		1		1		
Cyanide :		1		1		1		

X Out of Control

Al. Listil and Arc.pt-ble

<sup>&#</sup>x27; To be added at a later date. 
2 RPD = [:S-D:/((S+D)/2)]  $\times$  100 NC - Non calculable RPD due to value(s) less than CRDL

### Initial Calibration Verification and Continuing Calibration Verification

Documentation indicate Exceptions:				ked every (tem samples: Yes V.
Calibrations and verifications and verifications and verifications and verifications and verifications are listed because of the control of t	92:	l within the o	control limits	s specified in
Parameter	Acceptable Range (%)	Calibration Identifier	% of True Value	Comments
				·
				·
Interference QC Resu	il te			
	ates interference			fore and after every ten samples:Yes <u>V</u>
0	Its were all with	in the contro	l limits speci	fied in
Exceptions:	Acceptable	Calibration	% of	
Parameter	Range (%)	Identifier	True Value	Comments
				Please See next page for
				tabulations

#### Q.C. Report No. 55911



#### ICP INTERFERENCE CHECK SAMPLE

LAB NAME ROCKY MOUNTAIN ANALYTICAL

DATE 5-13-86

CASE NO 5880

Check Sample I.D. INT CHK
Check Sample Source EMSL-LV
Units mg/L

t t	Control	Limit	<u>5</u> 1	: :	Initial			Į.	Final		
Compound	Mean	Std.	Dev.	:True <sup>z</sup> :	Observed		%R	1 2	Observe	d_	%R
Metals:		e e		;		f				1	
1. ALUMINUM :		1		: 503 :	409	ŧ	31	1 1	416	4	83
2. ANTIMONY :		1		1 1	0.026U	ŧ		1	0.026U	1	
3. ARSENIC :		r		1 1	0.0290.	i		1	0.0290	ė ž	
4. BARIUM :				: 0.47;	0.4	1	85	t	0.4	1	85
5. BERYLLIUM:		ł 6		: 0.46:	0.48	1 4	104	ŧ	0.46	1	100
6. CADMIUM		1		: 0.96:	0.92	1	96	1	0.92	6	35
7. CALCIUM :		!		: 499 :	496	:	99	8	490	1	98
S. CHROMIUM :		t		: 0.98:	0.87	1	39	;	0.36	1	38
9. COBALT :		4		: 0.48:	0.46	1	96	1	0.46	1	96
10. COPPER :		t r		: 0.51:	0.51	1	100	1	0.52	8	102
11. IRON		1		198 :	177	ž š	39	1 1	176	1 1	89
12. LEAD :	4.7	. 0	.14	4.6 :	4.4	1	94	1	4.4	1	94
13. MAGNESIUM:		1		1 497 1	508	8 6	102	1	528	1,	106
14. MANGANESE:		e t		: 0.52:	0.54	1	104	1	0.54	1	104
15. MERCURY :		1		8 8 1 1		4		1		8	
16. NICKEL :		ŧ		: 0.91:	0.36	4	95	1	0.35	1	93
17. POTASSIUM:		1		1 1	0.54U	\$		1	0.54U	1	
18. SELENIUM :		t e		: :		*		4		6	
19. EILVER :		<del>)</del>		: 0.99:	0.93	!	94	1	0.94	1	95
20. SODIUM :		*			6.4	,		;	6.2	ę £	
21. THALLIUM :		į		: :		1		1		8	
22. TIN :		•		: :	0.016U	1		4	0.016U	;	
23. VANADIUM :		1		: 0.47:	0.46	1	98	1	0.45	4 6	96
24. ZINC :		e e		: 0.95:	0.83	4	93	1	0.89	1	94
Other: !		t }		1 1		ŧ		1		1	
1		ę ę		1 1 1		8		1		8	

<sup>&#</sup>x27; Mean value based on n = 37.

ALL literalies the Prefalle

<sup>&</sup>lt;sup>2</sup> True value of EPA ICF Interference Check Sample or contractor standard.

#### Q.C. Report No. 55910



#### ICP INTERFERENCE CHECK SAMPLE

LAB	NAME	ROCKY	MOUNTAIN	ANALYTICAL

DATE 5-12-86

CASE NO 5880
Check Sample I.D. INT CHK
Check Sample Source EMSL-LV
Units mg/L

;	Control	Limits	; ;	Initial			1	Final		
Compound :	Mean !	Std. Dev.	!True2 !	Observed	1	%R	1 3	Observe	1_	%R
Metals:	1		1				ŧ		ŧ	
1. ALUMINUM :	1		: 503 :	417	1	83	1	408	!	81
2. ANTIMONY :	1		1 1	0.026U	ŀ		l I	0.026U	1	
3. ARSENIC :	1		1 1	0.029U	á á		8	0.029U	8	
4. BARIUM :	;		0.471	0.42	1	89	1	0.43	ŧ	91
5. BERYLLIUM:	1		0.46	0.49	ŧ	107	1	0.51	ŧ !	111
6. CADMIUM	1		0.96:	0.94	;	98	1	0.92	\$ 6	96
7. CALCIUM :	1		: 499 :	506	ŀ	101	f I	510	1	102
8. CHROMIUM :	1		0.981	0.9	1	92	1	0.92	1	94
9. COBALT :	:		: 0.48:	0.48	1	100	ŀ	0.5	!	104
Ø. COPPER :	\$ *		0.51;	0.53		104	1	0.53	8	104
1. IRON :	1		198:	183	1	92	1	186	!	94
2. LEAD :	4.7	0.14	4.6	4.7	1	100	1	4.7	8	100
3. MAGNESIUM!	!		: 497 :	506	1	102	ŧ	527	1	106
4. MANGANESE:	1		0.521	0.54	1	104	1	0.61	1	117
.5. MERCURY :	1		1 1		1		8		1	
6. NICKEL :	t 8		: 0.91;	0.89	1	98	1	0.93	8	102
7. POTASSIUM:			! !	0.54U	!		1	0.54U	1 8	
8. SELENIUM :	1		1 1		1		1		1	
.9. SILVER :	1		0.991	0.96	1	97	ŧ	0.93	. [	94
0. SODIUM :	;		1 4 1 f	6.1	1		1	6.6	8	
1. THALLIUM :			1		1		1		1	
22. TIN :	1		1 1	0.016U	1	Herita is	1	0.016U	1	
3. VANADIUM :	1		: 0.47:	0.47	ě,	100	1	0.47	1	100
4. ZINC			0.951	0.91	1	96	1	0.91	8	96
Other:			1 1		1		3 6		1	
1	1		: :		I f		1		:	

Mean value based on n = 37.

All Forest in Property

<sup>&</sup>lt;sup>2</sup> True value of EPA ICP Interference Check Sample or contractor standard.



### Detection Limits Results

Detection limits were reported for all samples anal	yzed: Yes No
Exceptions:	
Detection limits were less than or equal to the requestion was 4- Jog 2	uired detection limits Yes No
Exceptions:	
Instrument Sensitivity Repor	rts
Instrument sensitivity reports were documented for	all parameters:
	Yes No
Comments:	
Other Remarks Concerning this Case:	

if actual mesent may not reflect the average concentration present.

P60502

			Fo	rm I			GINA.
Sam P.O	ple Manageme . Box 818 -	ct Laboratory nt Office Alexandria, ' TS: 3-557-249	VA 2231		Data	EPA Sample MCD6	15
		INODOAN	TC ABTATS	ara ni		5-12-	86
SOW	NAME ROCKY NO. SAMPLE ID.	MOUNTAIN ANA 784 NO	LYTICAL		QC	E NO. <u>5880</u> REPORT NO.	55910
Con	centration:	Low X			and Measured Medium		
Mat	rix: Water	X So:	il		Medium Sludge	Other _	
			U	G/L			
1.	ALUNINUM	19U	P	13.	MAGNESIUM	[4790]	P
2.	ANTIMONY	26U	F	14.	MANGANESE	4U	P
3.	ARSENIC	100	F	15.	MERCURY	Ø.1U	CV
4.	BARIUM	11U	P	16.	NICKEL	[14]	P
5.	BERYLLIUM	1 U	P	17.	POTASSIUM	11000	P
6.	CADMIUM	ຣນ	P	18.	SELENIUM	5U	FR
7.	CALCIUM	13600	P	19.	SILVER	ЗU	Р
8.	CHROMIUM	[5]	P	20.	SODIUM	47500	p.
9.	COBALT	7U	P	21.	THALLIUM	100	F
10	COPPED	1201	p	22	TIM	1611	D

Footnotes: For reporting results to EFA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

F

23.

24.

VANADIUM

Percent Solids (%)

ZINC 15%

5U

35

[36]

5U

NR

II. IRON

Cyanide

12. LEAD



U.S. EPA Contract Laboratory Program EPA Sample No. Sample Management Office MCD622 P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490 Date \_\_\_\_5-12-86 INORGANIC ANALYSIS DATA SHEET LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO. 5880 SOW NO. 734 LAB SAMPLE ID. NO. QC REPORT NO. 55910 Elements Identified and Measured Medium \_\_\_\_Other Low \_ Concentration: Matrix: Water X UG/L ALUMINUM [36] P 13. MAGNESIUM 11300 ANTIMONY 26U P 14. MANGANESE 19 2. ARSENIC 10U F 15. MERCURY 0.1U CV 6U BARIUM [162] P 4. 16. NICKEL 5. BERYLLIUM 1U P 17. POTASSIUM [4420] 6. CADMIUM 5U P 18. SELENIUM 5U F R 7. CALCIUM 27000 P 19. SILVER 3U P 8. CHROMIUM 5U P SODIUM 71700 20. COBALT 7U P 21. THALLIUM 10U 9. 10. COPPER [5.1] P 22. TIN 16U P 11. IRON 180 P 23. VANADIUM 5U P ZINC % 778 P 12. LEAD 5U F 24.

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags

Cyanide NR Percent Solids (%)

must be explicit and contained on Cover Page, however.

Comments:				
				200
			140:203	
	Lab	Manager	TMI	



#### 00004

#### Form I

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

t	EPA	Sample No.	
		MCD624	
í			
è			

Date 5-12-86

	NO			40	REPORT NO.	22310
	Element	s Ident	ified	and Measured		
ncentration: trix: Water	Low X X So	il		Medium	Other	
			UG/L			
ALUMINUM	190	P	_ 13.	MAGNESIUM	5370	Ē
ANTIMONY	261	P	14.	MANGANESE	4U	P
ARSENIC	100	8	_ 15.	MERCURY	0.1U	CV
BARIUM	11U	P	_ 16.	NICKEL	6 <b>U</b>	P
BERYLLIUM	1U	P	17.	POTASSIUM	11600	P
CADMIUM	5U	P	18.	SELENIUM	5 <b>U</b>	F
CALCIUM	13900	P	_ 19.	SILVER	30	P
CHROMIUM	5 <b>U</b>	P	20.	SODIUM	42500	P
COBALT	7U	P	_ 21.	THALLIUM	10U	F
. COPPER	31	P	_ 22.	TIN	16U	Р
. IRON	[36]	P	_ 23.	VANADIUM	5Ŭ	P
. LEAD	5V	F	24.	ZINC #		P
anide	NR		Per	cent Solids (%)	)	
use exp mus	ed as defined plaining resu	on Cov lts are t and c	er Page encour ontaine	, standard results. Additional raged. Definited on Cover Page	flags or f	ootnot h flag

PFE 00005

ORIGINAL (ESA) Sample No. MCD626

Sam P.O	ple Manag . Box 818	ntract Laborator gement Office B - Alexandria, ' D FTS: 8-557-24	VA 2231			(EAA) Sample MCD62	
100	7551-2490	, FID. 0 337 24.	90		Date	5-12-8	36
		INORGAN	IC ANALY	SIS DA	ATA SHEET		
	NAME ROO	CKY MOUNTAIN ANA	LYTICAL		CASE	NO. <u>5880</u>	
	SAMPLE I				QC F	REFORT NO. 5	5910
		Elements	s Identi	fied a	and Measured		
Con	centratio rix: Vat	on: Low X So.	il	3	Medium Sludge	Other	
			U	G/L			
1.	ALUMINUM	[130]	P	13.	MAGNESIUM	[2090]	P
2.	ANTIMONY	7 26U	ď	14.	MANGANESE	116	7
3.	ARSENIC	100	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[34]	Р	16.	NICKFL	6U	P
5.	BERYLLIU	JM 1U	P	17.	FOTASSIUM	[2000]	P
6.	CADMIUM	50	P	13.	SELENIUM	5U	FR
7.	CALCIUM	[4670]	P	19.	SILVER	30	P
8.	CHROMIUM	5 U	P	20.	SODIUM	[4750]	P
9.	COBALT	70	P	21.	THALLIUM	100	F
10.	COPPER	30	P	22.	TIN	16U	P
11.	IRON	1990	Р	23.	VANADIUM	วิช	P
12.	LEAD	50	F	24.	ZINC X	16]	P
Суа	nide	. NR		Perc	ent Solids (%)		
Foo		For reporting re- used as defined explaining resul- must be explicit	on Cove lts are	r Page	e. Additional aged. Definit	flags or fo	otnotes flags
Com	ments:						
	-			7-1-31	Lab Manager	TML	

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

ORIGINAL

00006

EPA Sample No. MCD627

Date 5-12-86

#### INORGANIC ANALYSIS DATA SHEET LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO. 5880 SOW NO. LAB SAMPLE ID. NO. QC REPORT NO. 55910 Elements Identified and Measured Medium \_\_\_\_Other \_\_\_\_ X Medium Soil Sludge Low Concentration: Matrix: Water X UG/L ALUMINUM [133] P 13. MAGNESIUM [2090] P 26U P 14. 2. ANTIMONY MANGANESE 119 ARSENIC 10U F CV 3. 15. MERCURY 0.1U BARIUM [35] P 16. NICKEL 5U 4. BERYLLIUM 1U P 17. POTASSIUM (2000) P 5. 5U P FR 6. CADMIUM 18. SELENIUM 50 CALCIUM [4700] P 7. SILVER 3U 19. CHROMIUM 5U P 20. SODIUM 5230 3. 7U P 21. THALLIUM 10U F 9. COBALT 10. COPPER [4.5] P 22. TIN 16U 2090 P 11. IRON 23. VANADIUM 5U P 12. LEAD 5U F 24. ZINC (12) P Cyanide NR Percent Solids (%) Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags

must be explicit and contained on Cover Page, however.

Comments:			
			Name of the last o
	Lab Manager	TML	

# ORIGINAL (Red)

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#### Form I

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

EPA	Sample	No.	
	MCD62	88	

	NO. SAMPLE ID. NO	734			QC !	REPORT NO. 5	55910
		Elements	s Ident:	ified a	and Measured		
Con Mat	centration. rix: Vater	Low X X Soi	11		Medium Sludge	Other	
			1	UG/L			
1.	ALUMINUM	(168)	P	_ 13.	MAGNESIUM	[3640]	P
2.	ANTIMONY	260	ַ	14.	MANGANESE	50	P
3.	ARSENIC	100	F	_ 15.	MERCURY	0.10	CA
4.	BARIUM	[50]	P	16.	NICKEL	<u></u> 60	F
5.	BERYLLIUM	[1.2]	P	17.	POTASSIUM	[1680]	P .
Θ.	CADMIUM	5 <b>0</b>	P	18.	SELENIUM	5U	F R
7.	CALCIUM	[3500]	P	19.	SILVER	[3.1]	P
8.	CHROMIUM	5 <b>U</b>	F	20.	SODIUM	5060	P
9.	COBALT	7U	P	21.	THALLIUM	100	F
10.	COPPER	3 <b>U</b>	P	_ 22.	TIN	16U	P
11.	IRON	1270	P	23.	VANADIUM	5U	P
12.	LEAD	ŢŬ	F	24.	ZINC MG	[4.6]	P
Cya	nide	MR.		Perd	ent Solids (%)	)	
Foo	used	as defined	on Cove	er Page	standard resu Additional raged. Definit	flags or fo	otnotes



U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

EPA	Sample No.	- 1
	MCD629	1
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		THE ALLEY OF					
703/557	7-2490	FTS: 8-557-2490	)		Dat	e <u>5-12-</u>	-86
		INORGANIC	ANALY	SIS DA	TA SHEET		
		MOUNTAIN ANALY	TICAL		CA	SE NO. <u>5880</u>	
SOW NO.	MPLE ID.	784 NO. –			QC	REPORT NO.	55910
		Elements	Identi	fied a	nd Measured		
Concent Matrix:	tration: : Water	Low X X Soil		3	Medium	Other _	
			U	IG/L			
1. ALI	MUNIMU	[30]	P	13.	MAGNESIUM	2950	- P
2. <u>AN</u> 1	PIMONY	260	P	14.	MANGANESE	4U	P
3. ARS	BENIC	100	F	15.	MERCURY	0.17	CA
4. BAR	RIUM	110	P	16.	NICKEL	[15]	P
5. <u>BE</u>	RYLLIUM	1U	מ	17.	POTASSIUM	5420	P
6. CAI	MIUM	511	P	13.	SELENIUM	SU	FR
7. <u>CAI</u>	LCIUM	252U	P	19.	SILVER	30	P
3. <u>CH</u>	ROMIUM	50	P	20.	SODIUM	653U	P
9. <u>CO</u> E	BALT	7U	P	21.	THALLIUM	100	F
10. <u>CO</u> F	PPER	[17]	P	22.	TIN	160	P
11. IRC	N	[78]	P	23.	MUIGANAV	5U	P
12. LEA	AD .	57	F	24.	ZINC No	[20]	P
Cyanide	9	- NR		Perc	ent Solids (	%)	
Footnot Comment	us ex mu	r reporting reset as defined of plaining result st be explicit	on Cove s are and co	er Fage encour ntaine	. Additiona aged. Defin d on Cover P	l flags or f	cotnotes h flags
					Lab Manage	r JML	
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# ORIGINAL (Red)

#### Form I

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

EPA	Sample No.	
	MCC936	

Date	5-12-86
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		Element	s Identi	fied a	and Measured		
Con Mat	centration: rix: Water	Low X X So	11		Medium	Other	
			U	G/L			
1.	ALUMINUM	[150]	F	13.	MAGNESIUM	[2070]	P
2.	ANTIMONY	2611	P	14.	MANGANESE	114	P
3.	ARSENIC	100	F	15.	MERCURY	Ø.1U	CV
4.	BARIUM	[34]	P	16.	NICKEL	6U	P
5.	BERYLLIUM	10	P	17.	POTASSIUM	[1950]	P
6.	CADMIUM	5 <b>U</b>	P	18.	SELENIUM	5U	FR
7.	CALCIUM	[4600]	P	19.	SILVER	10	P
3.	CHROMIUM	5U	Р	20.	SODIUM	[4860]	P
9.	COBALT	7U	P	21.	THALLIUM	100	F
10.	COPPER	[12]	Р	22.	TIN	16U	P
11.	IRCN	2060	P	23.	VANADIUM	5U	p
12.	LEAD	5U	F	24.	ZINC H	2717	P
Суа	nide	- NR		Perc	cent Solids (%)	)	
	used expla	as defined ining result be explici-	on Cove Its are t and co	r Page encour ntaine	standard reside. Additional raged. Definited on Cover Page	flags or fo	otnotes

## PFE ORIGINAL (Red)

#### Form I

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

	EPA	Sample No. MCD630
1		

						Dat	e 5-13-8	6
		,	INORGANI	C ANALYS	SIS DA	TA SHEET		
			TAIN ANAL	YTICAL		CA	SE NO. <u>5880</u>	
SOW	NO. SAMPLE	ID. NO.	784 -			QС	REPORT NO. 5	5911
			Slements	Identif	ied a	nd Measured		
Can	c an+ma+1.	221	Low X					
Mat	rix: Va	ter	Soil	Х	Slu	Medium	Other	
				mg/kg	dry w	reight		
1.	ALUMINU	15	7500	P	13.	MAGNESIUM	[1420]	Р
2.	ANTIMON	Y	46U	P	14.	MANGANESE	399	Р
3.	ARSENIC		71	F	15.	MERCURY 0.1	2m 2 At	CV
4.	BARIUM		[79]	P	16.	NICKEL	· 11U	P
5.	BERYLLI	UM	1.80	P	17.	FOTASSIUM	9680	P
6.	CADMIUM		8.90	P	13.	SELENIUM	8.90	F R
7.	CALCIUM		[1570]	P	19.	SILVER	5.40	P
8.	CHROMIU	M	51	P	20.	SODIUM	[1770]	P
9.	COBALT		130	Р	21.	THALLIUM	18U	F
10.	COPPER		[39]	Р	22.	TIN	<b>2</b> 9U	P
11.	IRON		45100	P	23.	VANADIUM	[30]	P
12.	LEAD		11	F	24.	ZINC	93	P
Суа	nide		NR		Perc	ent Solids (	%) 28	
Foo	tnotes:	used as	defined ning resul	on Cover	Page	a. Additiona aged. Defin	sult qualifie l flags or fo ition of such age, however.	otnotes
Com	ments: _							
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	prilately					Lab Manage	r JML	

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 3-557-2490

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EPA Sample No. MCD031

703	/557-2490 FTS:	8-557-249	Ø		Date _	5-13-6	36
		INORGANI	C ANALYS	SIS DA	ATA SHEET		
	NAME ROCKY MOU		YTICAL		CASE	NO. <u>5880</u>	
LAB	NO. SAMPLE ID. NO.	784			QC RE	PORT NO.	55911
		Elements	Identi	fied a	and Measured		
Con Mat	centration: rix: Water	Low X Soil	X	_ Slu	MediumOt	her	
			mg/kg	dry v	veight		
D.	ALUMINUM	4610	P	13.	MAGNESIUM	[424]	P
2.	ANTIMONY	237	P	14.	MANGANESE	136	P
3.	ARSENIC	17	F	15.	MERCURY[0.1]	0.30	CA
A .	BARIUM	[41]	P	16.	NICKEL	5.3U	. Р
5.	BERYLLIUM	U38.0	P	17.	POTASSIUM	[612]	P
Ð.	CADMIUM	4.4U	Р	18.	SELENIUM	4.4U	FR
7.	CALCIUM	[895]	P	19.	SILVER	2.60	P
8.	CHROMIUM	23	P	20.	SODIUM	[964]	P
D	COBALT	6.1U	P	21.	THALLIUM	<u> </u>	F_
10.	COPPER	[21]	P	22.	TIN	14U	Р
11.	IRON	14600	P	20.	VANADIUM	[17]	P
12.	LEAD	7.4	F	24.	ZINC	43	P
Cya	nide	NR		Perc	ent Solids (%)	57	
,	used a explai	as defined ning resul	on Cover	r Page	standard resule. Additional fraged. Definitied on Cover Page	lags or fo	ootnotes h flags
	***				Lab Manager	TMI	

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

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EPA	Śample No. MCD632

					Date _	5-13-8	6
		INORGANI	C ANALY	SIS DA	ATA SHEET		
SOW	NAME ROCKY NO. SAMPLE ID.	MOUNTAIN ANAL 784 NO	YTICAL			NO. <u>5880</u> EPORT NO. <u>5</u>	5911
		Elements	Identi	fied a	and Measured		,
Con	centration: rix: Water	Low X Soil	X	Sli	Medium	her	<del></del>
			mg/kg	dry v	veight		
	ALUMINUM	10400	P	13.	MAGNESIUM	[1010]	P
2.	ANTIMONY	54U	P	14.	MANGANESE	318	Р
3.	ARSENIC	210	Ç	15.	MERCURY 0.21	_0.411	CV
1.	BARIUM	[147]	Р	16.	NICKEL	[18]	P
5.	BERYLLIUM	2.10	P	17.	POTASSIUM	114401	Р
).	CADMIUM	100	P	18.	SELENIUM	100	FR
7 .	CALCIUM	[1420]	р	19.	SILVER	6.30	P
}.	CHROMIUM	[18]	P	20.	SODIUM	[1620]	P
D	COBALT	[17]	P	21.	THALLIUM	21U	F
0.	COPPER	[27]	Р	22.	TIN	33U	Р
1.	IRON	52500	P	23.	VANADIUM	[34]	Р
2.	LEAD	15	F	24.	ZINC	68	P
yā	nide	NR		Pero	ent Solids (%)	24	
00	usec exp.	i as defined d laining result	on Cover ts are	r Page	standard resule. Additional fraged. Definitied on Cover Page	lags or fo on of such	otnotes flags
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#### Form 1

U.S. EPA Contract Laboratory Program Sample Management Office

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1 -1 2	Sample MCD63	34	
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					Date	5-13-3	) (T
		INORGANI	C ANALY	SIS DA	TA SHEET		
AB NAME	ROCKY MOU	JHTALA ANAL	YTICAL		CASE	NO. <u>5880</u>	
OW NO. AB SAMPI	E 110	734			QC F	EPORT NO. 5	5911
		Elements	. Identi:	fied a	ind Measured		
oncentra atrix:	ation: Water	Low X	9 P / 	_ Slu	Medium	Other	
			mg/kg	dry w	weight		
. ALUMI	NUM	11100	Ī,	13.	MAGNESIUM	[2260]	Ď
ANTIN	ONY	20			MANGANESE	597	P
ARSEN	IIC	45	T	15.	MERCURY 0.24	J2-57	CV
BARIU	M	111773	P	16.	NICKEL	140	P
BERYL	LIUM	2.40	P	17.	POTASSIUM	12900	P
CADMI	UM	130	P	18.	SELENIUM	120	FF
CALCI	UN	[1940]	- 2	19.	SILVER	7.1U	P
CHRON	HUM	78	P	20.	SODIUM	[1710]	P
COBAL	T	17U	P	21.	THALLIUM	24U	P
O. COPPE	R	[52]	5	22.	TIN	38U	P
L. IRON		75400	Ď	23.	VANADIUM	[39]	F
E. LEAD		14	F	24.	ZINC	131	P
yanide _		NR		Pero	ent Solids (%)	21	
ootnotes	used a explai must h	as defined ining resul	on Cove	r Page encour	standard resu e. Additional raged. Definit ed on Cover Pag	flags or fo	otnote
omments:							

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313

EPA Sample No. MCD635

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703/557-2490 FTS: 8-557-2490

#### Date 5-13-86 INORGANIC ANALYSIS DATA SHEET LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO. 5880 SOW NO. LAB SAMPLE ID. NO. QC REPORT NO. 55911 Elements Identified and Measured Concentration: Low X Matrix: Water Soil Medium \_\_\_\_\_\_Other \_\_\_\_\_ mg/kg dry weight ALUMINUM 9.50 P 13. MAGNESIUM 148U ANTINONY 13U P 14. Su 2. MANGANESE ARSENIC 5U F 15. MERCURY 0.05/10.00 3. BARIUM 5.5U P 16. 31 NICKEL BERYLLIUM 0.5U P POTASSIUM 271U 5. 17. CADMIUM 2.5U P FR SELENIUM 2.5U 13. P 19. CALCIUM 176U SILVER 1.5U CHROMIUM 2.5U P 20. SODIUM [432] COBALT 3.5U P 21. THALLIUM 5U 10. COPPER 1.5U P 22. TIN 8U P 11. IRON [13] P 23. VANADIUM 2.5U P 12. LEAD 2.5U F 24. ZINC [1.9] P Cyanide NR Percent Solids (%) 100 Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however. Comments: Sample 10 as Water Bland Lab Manager JML



APPENDIX D

ORIGINAL (Red)

#### Form I

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

EPA	Sample No.	
	MCD630	

					Date _	5-13-8	6
		INORGANIC	C ANALY	SIS DA	TA SHEET		
SOW	NAME ROCKY NO. SAMPLE ID.	MOUNTAIN ANALY 784 NO	YTICAL			NO. <u>5880</u> PORT NO. <u>5</u>	5911
		Elements	Identi	fied a	ind Measured		
Con Mat	centration: rix: Water	Low X Soil	х	_ Slu	MediumOt	her	
			mg/kg	dry w	reight		
1.	ALUMINUM	7500	Р	13.	MAGNESIUM	[1420]	Р
2.	ANTIMONY	46U	P	14.	MANGANESE	399	P
3.	ARSENIC	71	F	15.	MERCURY 0.18ac	o At	CV
4.	BARIUM	[79]	Р	16.	NICKEL	11U	P
5.	BERYLLIUM	1.80	P	17.	POTASSIUM	968U	P
6.	CADMIUM	8.90	P	18.	SELENIUM	8.9U	F R
7.	CALCIUM	[1570]	P	19.	SILVER	5.40	P
8.	CHROMIUM	51	P	20.	SODIUM	[1770]	P
9.	COBALT	130	P	21.	THALLIUM	18U	F
10.	COPPER	[39]	P	22.	TIN	29U	P
11.	IRON	45100	P	23.	VANADIUM	[30]	P
12.	LEAD	11	F	24.	ZINC	93	P
Суа	nide	NR		Perc	ent Solids (%)	28	
	use exp mus	ed as defined obtaining results to be explicit	on Cove ts are and co	r Page encour ntaine	standard resule. Additional faged. Definitied on Cover Page	lags or fo on of such , however.	otnotes flags
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					Lab Manager	JML	
					Lab Manager _	7111	



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Samp P.O	ole Manag	gement (	office candria,	ry Program VA 22313 490		_	PA Sample MCD63	31
						Date _	5-13-8	00
			INORGA	NIC ANALYS	IS DA	TA SHEET		
				ALYTICAL		CASE	NO. <u>5880</u>	
	NO. SAMPLE		784			QC RE	PORT NO. 5	55911
			Elemen	ts Identif	ied a	and Measured		
Cond	centration	on: ter	Low	<u>X</u> il X	Slu	MediumOt	her	
				mg/kg				
1.	ALUMINU	भ	4610	P	13.	MAGNESIUM	[424]	P
2.	ANTIMON		230	P	14.	MANGANESE	136	P
3.	ARSENIC		17	F	15.	MERCURY[0.17]	0.20	CV
4.	BARIUM		[41]	P	16.	NICKEL	5.30	P
5.	BERYLLI	UM	Ø.88U	P	17.	POTASSIUM	[612]	P
ô.	CADMIUM		4.4U	P	18.	SELENIUM	4.4U	FR
7.	CALCIUM		[895]	P	19.	SILVER	2.6U	P
3.	CHROMIU	4	23	P	20.	SODIUM	[964]	Р
D.	COBALT		6.1V	P	21.	THALLIUM	3.80	F
10.	COPPER		[21]	P	22.	TIN	14U	Р
11.	IRON		14600	P	23.	VANADIUM	[17]	P
12.	LEAD		7.4	F	24.	ZINC	43	P
Cya	nide		NR		Pero	ent Solids (%)	57	
	tnotes:	used as	define	d on Cover ults are e	Page ncour	standard resule. Additional fraged. Definitied on Cover Page	lags or fo	otnotes

## ORIGINAL (Red)

#### Form I

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

EPA	Sample No.	
	MCD632	

Date <u>5-13-86</u>

	W.1475 D.O.	A7777 WATTI			SIS DA	TA SHEET	GD NO FORA	
SOW	NO.	17	NTAIN ANAL 784	YTICAL			ISE NO. <u>5880</u>	
LAB	SAMPLE	ID. NO.	-			QC	REPORT NO. 5	55911
			Elements	Identii	ied a	nd Measured		
	centrati rix: Va		Low X Soil	X	Slu	Medium	Other	
				mg/kg	dry w	reight	•	
D.	ALUMINU	M	10400	P	13.	MAGNESIUM	[1010]	P
2.	ANTIMON	Y	54U	P	14.	MANGANESE	318	P
3.	ARSENIC		210	F	15.	MERCURY 0.6	2/1 0.40	CV
4.	BARIUM		[147]	P	16.	NICKEL	[18]	P
5.	BERYLLI	UM	2.10	P	17.	POTASSIUM	[1440]	P
5.	CADMIUM		100	P	18.	SELENIUM	10U	FR
7.	CALCIUM		[1420]	Р	19.	SILVER	6.30	P
3.	CHROMIU	M	[18]	P	20.	SODIUM	[1620]	P
•	COBALT		[17]	P	21.	THALLIUM	210	F
.0.	COPPER		[27]	P	22.	TIN	330	Р
1.	IRON		52500	P	23.	VANADIUM	[34]	Р
2.	LEAD		15	F	24.	ZINC	68	Р
yar	nide		NR		Perc	ent Solids <u>(</u>	%) 24	
001	tnotes:	used as explain	defined ing resul	on Cover ts are e	Page	. Additiona aged. Defin	sult qualifie l flags or fo ition of such age, however.	otnotes
omn	ments: _							
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U.S. EPA Contract Laboratory Program

EPA Sample No.	ORIGINA (Weer)	L	000
MCD634	EPA		

Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: S-557-2490 Date \_\_\_ 5-13-86 INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO. 5880 SOW NO. 734 LAB SAMPLE ID. NO. QC REPORT NO. 55911 Elements Identified and Measured Medium \_\_\_\_Other \_\_\_\_ Concentration: Low X
Matrix: Water Soil X Sludge mg/kg dry weight ALUMINUM 11100 P 13. MAGNESIUM [2260] ANTIMONY 32U P 14. MANGANESE 597 MERCURY 0.24 2.50 ARSENIC 95 F 3. 15. CV BARIUM [112] P NICKEL 14U 4. 16. BERYLLIUM 2.4U P 17. POTASSIUM 1290U 5. CADMIUM 12U P SELENIUM 12U F R 6. 18. SILVER 7.1U 7. CALCIUM [1940] P 19. 8. CHROMIUM 78 P SODIUM [1710] 20. 9. COBALT 17U P THALLIUM 24U F 21. P 10. COPPER [52] 22. TIN 38U 11. IRON 75400 P VANADIUM [39] P 23. 12. LEAD 14 F ZINC 131 P 24. Cyanide NR Percent Solids (%) 21 Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags

must be explicit and contained on Cover Page, however.

Comments:	

Lab Manager JAL

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U.S.	EPA	Cont	ract	Laborato	ry	Program
Sampl	le Ma	nage	ment	Office		
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703/5	557-2	490	FTS:	8-557-2	490	

FPA	Sample No.	-
DI A	- 1 (12/7)	
	MCD633	

Date 5-13-86

			TATO		A A TA Y T	ara NA	TA SHEET			
	NAME ROC					SIS DA		CASE NO	O. <u>5880</u>	
	SAMPLE I			-				QC REP	ORT NO.	55911
			Ele	ments	Identi	fied a	nd Measure	<u>d</u>		
	centratio rix: Wat			X Soil	x	_ Slu	Medium _	Othe	er	
					mg/kg	dry w	eight			
1.	ALUMINUM		9.5	U	P	13.	MAGNESIUM		14SU	P
2.	ANTIMONY		130		P	14.	MANGANESE		SA	P
3.	ARSENIC		5 <b>U</b>		F	15.	MERCURY	0.051	0.10	CA
4.	BARIUM		5.5	U	P	16.	NICKEL		30	P
5.	BERYLLIU	М	0.5	U	P	. 17.	POTASSIUM		2710	P
6.	CADMIUM		2.5	IJ	P	18.	SELENIUM		2.50	FR
7.	CALCIUM		176	U	P	19.	SILVER		1.5U	Р
3.	CHROMIUM		2.5	U	P	20.	SODIUM		[432]	P
19.	COBALT		3.5	U	P	21.	THALLIUM		5U	F
10.	COPPER		1.5	บ	P	22.	TIN		80	P
11.	IRON		[13	]	P	23.	VANADIUM	`	2.5V	P
12.	LEAD		2.5	U	F	24.	ZINC		[1.9]	P
Cya	nide		NR			Perc	ent Solids	(%) 1	00	
	Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.  Comments: Sample 10 a Water Slamb									
	- And property and the second									ROTOLE .
							Lab Mana	ger	JML	

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 .

EPA Sample No. :

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		Alexandria, VA FTS: 8-557-2490		3		1_		
						ate _	5-12-	-86
		INORGANIC	ANALY	SIS DA	TA SHEET			
	NAME ROCKY	MOUNTAIN ANALY	TICAL			CASE	NO. <u>5880</u>	
LAB	SAMPLE ID.					QC RE	PORT NO.	55910
		Elements	Identi	fied a	nd Measure	<u>d</u>		
Cond	centration: rix: Water	Low X X Soil		s	Medium _ ludge		Other _	
			U	G/L				
1.	ALUMINUM	190	P	13.	MAGNESIUM		[4790]	P
2.	ANTIMONY	26U	P	14.	MANGANESE		4U	P
3.	ARSENIC	10U	F	15.	MERCURY		0.1U	CV
4.	BARIUM	11U	P	16.	NICKEL		[14]	Р
5.	BERYLLIUM	1U	P	17.	POTASSIUM		11000	P
6.	CADMIUM	50	P	18.	SELENIUM		5 <b>U</b>	FR
7.	CALCIUM	13600	P	19.	SILVER		30	P
8.	CHROMIUM	[5]	P	20.	SODIUM		47500	P
Э.	COBALT	7U	P	21.	THALLIUM		100	F
0.	COPPER	[20]	P	22.	TIN		16U	. P
.1.	IRON	[36]	P	23.	VANADIUM		5U	Р
2.	LEAD	5U	F	24.	ZINC	X	35	Р
yaı	nide	NR		Perc	ent Solids	(%)		Professiologica seguniny drawneg planeter bisnip ngjenega dykamby dy
oc	usex	r reporting rest ed as defined or plaining results st be explicit	n Cove	r Page encour	. Additio aged. Def	nal fi	lags or i	footnotes ch flags
mr	ments:							
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### Form I

Sam P.O	ple Manag	ntract Labor gement Offic B - Alexandr D FTS: 8-55	e ia, VA	22313			E	PA Sample MCD		:
700	7 33 7 349	7 115. 0 55	7 2490			Γ	ate _	5-12-	-86	
		INO	RGANIC	ANALYS	IS DAT	TA SHEET				
LAB	NAM. ROO	CKY MOUNTAIN 784	ANALYT	ICAL			CASE	NO. <u>5880</u>		
LAB	SAMI I	[D. NO	-				QC RE	PORT NO.	55910	
		Ele	ments I	dentif:		nd Measure				
		on: Low ter X	X Soil		_ នា	Medium _ ludge		Other _	-	
				UG.	/L					
1.	ALUMITU	1 [36	]	P	13.	MAGNESIUM		11300	P	
2.	ANTIMO	26U		P	14.	MANGANESE	,	19	P	
3.	ARSENI:	100		F	15.	MERCURY		0.1U	CV	
4.	BARIUM	[16	2]	P	16.	NICKEL		6U	P	
5.	BERYLLI	<u>M</u> 1U		Р	17.	POTASSIUM		[4420]	P	
6.	CADMIUM	<u>50</u>		p	18.	SELENIUM		5U	F	R
7.	CALCIUM	270	00	P	19.	SILVER		30	P	-
8.	CHROMIU	<u> 50</u>		P	20.	SODIUM		71700	P	
9.	COBALT	7U		P	21.	THALLIUM		10U	F	
10.	COPPER	[5.	1.]	P	22.	TIN		16U	P	
11.	IRON	180	]	P	23.	VANADIUM		5U	P	-
12.	LEAD	5U	]	F	24.	ZINC	1/4	778	P	
Суа	nide	NR			Perce	ent Solids	(%)			
Foo	tnotes:	For reporting use as defining must be explaining must be explained.	ined on results	Cover are en	Page.	Additionaged. Def	nal fl initio	lags or i	footnot	es
Com	ments: _									
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#### Form I

U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 3-557-2490

EPA	Sample No. MCD624	
	MCD024	
	5-12-86	

TAGE STEEL CARD			10		'	
703/557-2490	FTS: 3-557-249	30		Date	5-12-	-86
	INORGAN	IC ANAL	YSIS DA	TA SHEET		
LAB NAME ROCKY		LYTICAL		CASI	E NO. <u>5880</u>	
SOW NO. LAB SAMPLE ID.	784 NO			QC 1	REPORT NO.	55910
	Elements	s Ident	ified a	nd Measured		
Concentration: Matrix: Water	Low X X So:	11	8	Medium	Other _	
			UG/L			
1. ALUMINUM	190	P	_ 13.	MAGNESIUM	5370	P
2. ANTIMONY	260	P	14.	MANGANESE	4U	P
ARSENIC	100	7	_ 15.	MERCURY	0.14	CV
A. BARIUM	11U	P	16.	NICKEL	6U	P
BERYLLIUM	1U	Р	17.	POTASSIUM	11600	Р
CADMIUM	5 <b>U</b>	P	18.	SELENIUM	5 <b>U</b>	F R
. CALCIUM	13900	Р	19.	SILVER	30	P
CHROMIUM	5V	P	20.	SODIUM	42500	P
. COBALT	70	P	21.	THALLIUM	100	F
Ø. COPPER	30	P	22.	TIN	16U	P
1. IRON	[36]	P	23.	VANADIUM	50	P
2. LEAD	5 <b>U</b>	F	24.	ZINC K		P
yanide	NR		Perc	ent Solids (%)	)	
us	ed as defined plaining resul	on Cove	er Page	standard resu . Additional aged. Definit d on Cover Pag	flags or f	ootnotes h flags
Comments:						
				Lab Manager	JML	

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Lab Manager JML

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#### Form I

U.S. EPA Contract Laboratory Program Sample Management Office

EP.	A Sample No.	1
	MCD626	1
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P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490 Date 5-12-86 INORGANIC ANALYSIS DATA SHEET LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO. 5880 SOW NO. LAB SAMPLE ID. NO. QC REPORT NO. 55910 Elements Identified and Measured Concentration: Low X Medium \_\_\_\_\_ Other \_\_\_\_ UG/L ALUMINUM [130] P 13. MAGNESIUM [2090] P ANTIMONY 26U P 14. MANGANESE 116 P 2. ARSENIC 10U F 15. MERCURY 0.1U CV 3. BARIUM [34] P 16. NICKEL 6U 4. BERYLLIUM 1U P 17. POTASSIUM [2000] P 5. CADMIUM 5U P 6. 18. SELENIUM 5U SILVER 3U 7. CALCIUM [4670] P 19. SODIUM [4750] P 8. CHROMIUM 5U P 20. THALLIUM 10U F 9. COBALT 7U P 21. TIN 16U P 10. COPPER 3U P 22. 11. IRON 1990 P 23. VANADIUM 5U 12. LEAD 50 F 24. ZINC 16 P Cyanide NR Percent Solids (%) Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however. Comments:



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Sam P.O	ple Mana Box 81	ntract La gement Of 8 - Alexa 0 FTS: 8	fice ndria, VA	22313			EPA Sample No. MCD627		
						Date	5-12-8	6	
			INORGANIC	ANALYS	IS DA	TA SHEET			
LAB	NAME ROON	CKY MOUNT	AIN ANALY	TICAL		CASI	E NO. 5880		
		ID. NO.	-			QC I	REPORT NO. 5	5910	
			Elements	Identif	ied a	nd Measured			
Con	centratio	on: Leter X	ow X Soil	•	_ S	Medium ludge	Other		
				UG.	/L				
1.	ALUMINU	M.	[133]	Р	13.	MAGNESIUM	[2090]	P	
2.	ANTIMON	Y :	26U	P	14.	MANGANESE	119	P	
3.	ARSENIC		100	F	15.	MERCURY	Ø.1U	CA	
4.	BARLUM		[35]	P	16.	NICKEL	6 <b>U</b>	P	
5.	BERYLLI	JM	1 U	P	17.	POTASSIUM	[2000]	Р	
6.	CADMIUM	\$	5 <b>U</b>	P	18.	SELENIUM	5U	FR	
7.	CALCIUM		[4700]	P	19.	SILVER	3U	P	
3.	CHROMIU	(	5 <b>U</b>	P	20.	SODIUM	5280	P ·	
9.	COBALT	,	7U	Р	21.	THALLIUM	10U	F	
10.	COPPER		[4.5]	P	22.	TIN	16U	Р	
11.	IRON		2090	P	23.	VANADIUM	5U	P	
12.	LEAD	ç	วับ	F	24.	ZINC Kau	(12)	P	
Cyai	nide	NI	3		Perce	ent Solids (%)	)		
Foot	tnotes:	used as dexplaining	defined o ng result	n Cover s are e	Page.	standard resu Additional aged. Definit lon Cover Pag	flags or fo	otnotes	
Comm	ments:						-		
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U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

EPA	Sample	No.	
	MCD62	28	

Date 5-12-86

							D	ate	-12-00	
			INO	RGANIC	CANALY	SIS DA	ATA SHEET			
	NAME ROC		NTAIN 784	ANAL	TICAL			CASE NO. 5	880	
	SAMPLE I							QC REPORT	NO. <u>5591</u>	0
			Elen	ments	Identi	fied a	and Measure	d		
	centratio		Low	X Soil		5	Medium _	Othe	r	
				0041		` G/L				_
1.	ALUMINUM	[	1168	3]	P	13.	MAGNESIUM	[36]	40] P	
2.	ANTIMONY		260		P	14.	MANGANESE	50	P	
3.	ARSENIC		100		F	15.	MERCURY	0.1	U C	V.
4.	BARIUM		[50]	1	Р	16.	NICKEL	6V	Р	
5.	BERYLLIU	M	[1.2	5 ]	Р	17.	POTASSIUM	[16	201 P	
6.	CADMIUM		5U		Р	18.	SELENIUM	5 <b>U</b>	F	R
7.	CALCIUM		[350	00]	P	19.	SILVER	[3.	1] P	
8.	CHROMIUM		5U		P	20.	SODIUM	506	0 P	
9.	COBALT		7U		P	21.	THALLIUM	10U	F	
10.	COPPER		3U		P	22.	TIN	16U	P	
11.	IRON		1270	)	P	23.	VANADIUM	5V	. P	
12.	LEAD		5V		F	24.	ZINC	146 [H.6]	P	
Cyar	nide		NR			Perc	ent Solids	(%)		
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Comm	ments:								-	
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U.S. EPA Contract Laboratory Program Sample Management Office P.O. Box 818 - Alexandria, VA 22313 703/557-2490 FTS: 8-557-2490

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1	LIL	compre no.	
ŧ		MCD629	
ş		MCDOZS	
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			•		Date	5-12	-86
		INORGAN	IC ANALY	SIS DA	TA SHEET		
LAB	NAME ROC	KY MOUNTAIN ANA	LYTICAL		CAS	E NO. 5880	
	NO. SAMPLE I	784 D. NO			QC 1	REPORT NO.	55910
			- Idonti	find a	nd Measured		
0							
Mat	centration	n: Low X er X So:	il	Ξ_	Mediumludge	Other _	
				JG/L			
1.	ALUMINUM	[60]	P	13.	MAGNESIUM	295U	Р
2.	ANTIMONY	260	P	14.	MANGANESE	4U	P
3.	ARSENIC	100	F	15.	MERCURY	Ø.1U	CA
4.	BARIUM	110	P	16.	NICKEL	[15]	P
5.	BERYLLIU	M 1U	p	17.	POTASSIUM	5420	P
6.	CADMIUM	5V	P	13.	SELENIUM	5 <b>U</b>	FR
7.	CALCIUM	3520	P	19.	SILVER	30	P
3.	CHROMIUM	50	P	20.	SODIUM	6 <b>5</b> 3V	P
9.	COBALT	7U	P	21.	THALLIUM	10U	F
10.	COPPER	[17]	P	22.	TIN	16U	Р
11.	IRON	[78]	P	23.	VANADIUM	5 <b>U</b>	P
12.	LEAD.	50	F	24.	ZINC Me	1207	P
Cya	nide	NR		Perc	ent Solids (%	>	
Foo		For reporting reused as defined explaining resulting resulting to the explicit	on Cove lts are	er Page	. Additional aged. Defini	flags or tion of su	footnotes ch flags
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Lab Manager

JML



EPA Sample No. U.S. EPA Contract Laboratory Program Sample Management Of ice MCC936 P.O. Box 818 - Alexadria, VA 22313 703/557-2490 FTS: 557-2490 Date 5-12-86 I ORGANIC ANALYSIS DATA SHEET LAB NAME ROCKY MOUNT AN ANALYTICAL CASE NO. 5880 SOW NO. 78 LAB SAMPLE ID. NO. -QC REPORT NO. 55910 El-ments Identified and Measured UG/L ALUMINUM [136] P 13. MAGNESIUM [2070] P ANTIMONY 261 P 14. MANGANESE 114 2. ARSENIC 10U F 15. MERCURY 0.1U CV BARIUM [34 P 16. NICKEL 6U BERYLLIUM 1U P 17. 5. POTASSIUM [1950] P 6. CADMIUM 5U P 18. SELENIUM 5U F R 7. CALCIUM [460] P 19. SILVER 10 P 8. CHROMIUM 5U P 20. SODIUM [4860] P COBALT 7U P 21. THALLIUM 10U F 10. COPPER [12] P 22. TIN 16U P 11. IRON 2060 P 23. VANADIUM 5U P 12. LEAD 5U F 24. ZINC 17 P Cyanide NR Percent Solids (%) 'ootnotes: For reporting results to EPA, standard result qualifiers are used as defined in Cover Page. Additional flags or footnotes explaining resus are encouraged. Definition of such flags must be expliciand contained on Cover Page, however. omments: Lab Manager JML

